## **WHAT IS CLAIMED IS:**

1. A method for adjusting a brightness level of a display used in a portable computer system, the method comprising:

٠.

separately providing brightness control information for a plurality of brightness levels for each of at least two power mode types;

confirming a type of power mode currently being used out of said at least two power mode types; and

controlling the brightness level of the display by using corresponding brightness control information on the confirmed power mode.

- 2. The method according to claim 1, comprising adjusting the brightness level of a LCD using an input device, wherein the type of power mode currently being used includes at least one of an AC adaptor mode and a supplementary battery mode.
- 3. The method according to claim 1, wherein when power of the portable computer system is switched to a power on mode from a power off mode, the type of power mode currently being used includes at least one of an AC adaptor mode and a supplementary battery mode.
- 4. The method according to claim 1, wherein when the power mode type currently being used in the portable computer system is changed to a different power mode

type, the changed power mode type includes at least one of an AC adaptor mode and a supplementary battery mode.

- 5. The method according to claim 1, wherein when a power supply being confirmed is a supplementary battery, the brightness level of the display is adjusted by using an index information corresponding to the brightness levels in a battery power mode.
- 6. The method according to claim 5, wherein when a power supply being confirmed is an AC adaptor, the brightness level of the display is adjusted by using an index information corresponding to the brightness levels in an AC adaptor power mode.
- 7. The method according to claim 6, wherein the index information corresponding to the brightness levels in the AC adaptor power mode and the index information corresponding to the brightness levels in the battery power mode are independent and respectively stored in a storage device.
- 8. The method according to claim 7, wherein the index information corresponding to the brightness levels in the AC adaptor power mode and the index information corresponding to the brightness levels in the battery power mode are separately stored in a microcomputer memory of the personal computer system and in a system initialization RAM.

9. The method according to claim 1, wherein when a power supply being confirmed is an AC adaptor, the brightness level of the display is adjusted by using an index information corresponding to the brightness levels in an AC adaptor power mode.

# 10. A method, comprising:

determining a type of power supply currently being used among a plurality of power supplies in a computer system when a brightness level of a display is adjusted;

selecting a brightness level information corresponding to the determined power supply type among brightness level information of the adjusted brightness level of the display for each of the plurality of power supplies and reading an index information corresponding to the selected brightness level information; and

driving the adjusted brightness level of the display based on the readout index information, and independently storing the index information according to the type of power supply.

11. The method according to claim 10, wherein the index information is stored in a memory, and at least one of an index information corresponding to an adjusted brightness level in an AC adaptor power mode and an index information corresponding to an adjusted brightness level in a battery power mode is separately stored in the memory.

#### 12. The method according to claim 10, further comprising:

changing from a first power supply being an AC adaptor to a second power supply being a battery, wherein the driving the adjusted brightness level of the display comprises referring to an index information in a battery power mode, and wherein the index information is separately stored in a memory.

#### 13. The method according to claim 12, comprising:

changing from the battery to the AC adaptor, wherein the driving the adjusted brightness level of the display comprises referring to an index information in an AC adaptor power mode, and wherein the index information is separately stored in the memory.

### 14. The method according to claim 10, comprising:

turning on power of the computer system after the power was turned off, wherein the driving the adjusted brightness level of the display comprises confirming the type of power supply currently being used, and reading out of a memory an index information in an AC adaptor power mode or in a battery power mode.

15. The method according to claim 10, wherein the brightness level of the display is adjusted automatically, periodically or using an input device by a user.

16. A method for adjusting a brightness level of a display, the method comprising: independently storing index information corresponding a brightness level of the display in at least two different power modes; and

adjusting a brightness of the display using information on a current power mode being used and the stored index information for the brightness level of the current power mode when the power mode is changed.

- 17. The method according to claim 16, wherein the independently storing comprises designating and separately storing brightness information in a plurality of brightness levels for each of the two different power modes.
- 18. The method of claim 16, comprising adjusting the brightness level of a LCD using an input device, wherein the type of power mode currently being used includes at least one of an AC adaptor mode and a supplementary battery mode.
- 19. The method of claim 18, wherein a brightness level in the AC adaptor mode is set different than a brightness level in the supplementary battery mode.
- 20. An apparatus that controls an inverter pulse width modulation (PWM) frequency of a liquid crystal display (LCD) in a portable computer, comprising:
- a storage device configured to separately provide LCD brightness level information for a plurality of brightness levels for each of at least two power mode types;

an inverter configured to supply a voltage to the LCD; and control means for controlling a PWM frequency of the inverter in accordance with a designated brightness level, a current power supply mode and the corresponding LCD brightness level information for the current power supply mode.

21. The apparatus of claim 20, wherein the LCD brightness level information includes index information.